Increasing Comfort & Inviting Behavior Change

Effectiveness of a Classroom Discussion Teaching Technique

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Introduction

With the growing interest in careers in psychology, there are as many personalities in a psychology classroom as there are characters on popular TV sitcoms. In a recent Multicultural Psychology class, all of the *Friends* (TV series) characters were represented during classroom discussions: Monica was always ready to debate, Chandler managed his discomfort through interjecting poorly timed jokes, Ross thought he had all the right answers, Joey never knew what was going on, Rachel did not do the reading, and Phoebe joyfully agreed with others' opinions (Bright et al., 1994–2004).

While interest in the field of psychology grows, educators celebrate the increase in class size while scratching their heads with how to manage this new era of classroom dynamic. This difficulty for many educators is most evident when students discuss socially or emotionally sensitive material. Personalities flare, discussion turns to debate, and the ground rules painstakingly set on the first day of class go out the window.

A number of pedagogical approaches are designed to facilitate classroom discussion. The fishbowl is intended to increase student engagement, critical thinking, and interpersonal communication skills during classroom discussions. It consists of a "large group which has been divided into two subgroups of equal number" (White, 1974, p. 476).

There are some variations of the method, but the most popular version includes two concentric circles with all students facing inward (Cummings, 2015). Half the students sit in the inner circle and discuss the topic, while the other half sit in the outer circle, listening, taking notes, and preparing to switch in (McKeachie, 2002). Once they trade places, it is the turn of the new group of students in the inner circle to speak. This allows all students an opportunity to contribute and requires those in the outer circle to listen to what their peers are saying without interjecting their own thoughts.

Ideally, discussions continue long enough for all students to participate, during 20- to 50-minute sessions (Fisher et al., 2007). Additional considerations include what material the instructor or students need to cover that day and how prepared students are to facilitate discussions. Debriefing afterward invites students to reflect on their participation, rectify misunderstandings, and share how they experienced the discussion (Marzano, 2010; Smart & Featheringham, 2006). Debriefing also offers an opportunity to evaluate what went well with the facilitation and to explore ideas for future improvements (Wood & Taylor, 2007).

Much of the research on the fishbowl technique has examined its effectiveness from a strictly educational perspective (i.e., impact on learning) rather than psychologically (i.e., impact on the students' thoughts and behaviors) and with child participants (e.g., Anistantia, 2017; Brevig, 2010).

A study conducted with Indonesian second graders found a significant improvement in English speaking, comprehension, vocabulary, and grammar abilities after the fishbowl technique was implemented (Anistantia, 2017). Working with fifth graders during literature discussions, Brevig (2010) found that "fishbowls engage students as co-researchers, exploring how their reflective community of learners emerges through interacting with the literature and each other" (p. 94). In one of the few empirical studies of the fishbowl technique being used with college students, Miller and Benz (2008) examined the effectiveness of online threaded discussions versus the fishbowl method and found that students perceived the fishbowl technique to increase their research-related problem-solving skills, ability to understand difficult material, and advice from peers.

Despite research showing successful implementation of the fishbowl technique in some settings, it does not appear to be widely used. Some research has indicated that students are often uncomfortable using discussion techniques that require them to speak in front of others (Young, 2007). Some educators choose not to implement techniques like these or to use them sparingly because they observe students' discomfort (Jackett, 2007; Young, 2007).

We have not found any research examining students' comfort with the fishbowl technique or how their comfort changes with continued participation in the technique. Furthermore, while

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research has suggested that the technique is effective in facilitating engagement (Brevig, 2010), no research has examined how the technique may affect behavior and perception change among participants.

We conducted this study to contribute to the body of empirical research that advises educators at the college level on classroom discussion facilitation techniques. We hypothesized that students would initially be uncomfortable while participating in the fishbowl, but that with more exposure to the technique over the course of the semester, they would become more comfortable and their participation would increase.

Because of the peer-led and organic nature of the discussion technique, we hypothesized that participation in fishbowl discussions would lead to discussions students do not normally have in a classroom setting, influence students' behavior outside of class, and improve their retention of the material compared to the influence of traditional lecture and discussion methods.

Methods

Participants

Students in two Multicultural Psychology courses at a university in the Pacific Northwest were invited to participate. Eighteen women, seven men, and five students who did not report demographic information participated in this study. Participants' ages ranged from 18 to 50 years (M = 23.4, SD = 7.0), and most identified as White, non-Hispanic (33%), followed by American Indian/Alaska Native (11%), Asian (11%), Latinx (11%), and Black or African American (3%).

Procedure

Each week, two-thirds of the course time was devoted to traditional course instruction (e.g., lecture, open discussion, small-group work), while the remaining third was reserved for fishbowl discussions. At the beginning of the semester, the instructor introduced students to techniques to prepare them for the day they would facilitate a fishbowl discussion with a partner. For example, they were taught how to prepare open-ended questions, validate and encourage participation from their peers, and allow silences to linger in order to encourage reflection and participation.

During the weekly 50-minute fishbowl discussions, students arrived having read an assigned chapter from Andrew Solomon's (2012) *Far from the Tree* or Sheryl Sandberg's (2013) *Lean In: Women, Work, and the Will to Lead*, and two students were prepared to summarize the chapter and facilitate discussion. Students arranged desks in the classroom into two concentric circles so that the students sitting in both circles were facing the center of the room. The preselected discussion facilitators sat in the inner circle for the entire 50 minutes, while the rest of the class started in either the outside or inside circle, then switched after 25 minutes.

Before the first fishbowl discussion, the students completed a pretest via Google Forms consisting of seven questions assessing their perception of how the fishbowl technique would impact their participation, comfort with the discussion technique, and experiences with the material. Students completed the same questionnaire at the end of the semester, after participating in approximately 15 fishbowl discussions, to assess the extent to which their thoughts about the fishbowl technique had changed over the course of the semester. Results were compiled and analyzed in SPSS.

Results

Fifteen participants completed both the beginning-of-semester pretest and the end-of-semester posttest. A paired-samples t-test was conducted to evaluate the hypothesis of a difference in the mean ratings between students' experiences with the fishbowl technique at the beginning and end of the semester.

The mean rating for participation pretest was 8 (SD = 1.20), and the mean rating for participation posttest was 8.3 (SD = 1.29). Although the students' level of participation (listening and speaking) trended up across the semester, $t_{(14)} = -1.58$, $p > .05$, the difference was not significant.

The mean rating for comfort pretest was 5.47 (SD = 1.51), and the mean rating for comfort posttest was 7 (SD = 1.36). The test was significant, $t_{(14)} = -3.72$, $p < .01$, indicating that students became more comfortable and perceived their peers to be more open during fishbowl discussions at the end of the semester.

The mean rating for new experiences and behavior change pretest was 11 (SD = 1.85), and the mean rating posttest was 12.27 (SD = 1.62). The test was significant, $t_{(14)} = -2.39$, $p < .05$, indicating that the degree to which students believed the fishbowl discussions would lead to conversations on topics they would not normally discuss in a classroom setting, change their behaviors outside the classroom, and retain information significantly increased from the beginning to the end of the semester. See Table 1.

Twenty-seven students completed the end-of-semester questionnaire; results indicate that most students believed their participation (listening and speaking) increased on fishbowl discussion days (e.g., 69.4% of participants

Table 1
Paired-Samples t-Test for Self-Reported Impact of Fishbowl Technique

	Mean	*SD*	*SE*	*95% confidence interval of the difference:*		*t*	*df*	*Sig. (2-tailed)*
				Lower	*Upper*			
Pair 1, participation	–0.33	0.82	0.21	–0.79	0.12	–1.58	14	0.14
Pair 2, comfort	–1.53	1.60	0.41	–2.42	–0.65	–3.7	14	0.002
Pair 3, new experiences	–1.27	2.05	0.53	–2.40	–0.13	–2.39	14	0.031

Note: The available responses to the prompts included "strongly agree," "agree," "neutral/undecided," "disagree," and "strongly disagree." One exception was available responses to the question What is your level of comfort with participating in fishbowl discussions? The available responses to that prompt were "extremely," "very," "moderately," "slightly," and "not at all."

endorsed "agree" or "strongly agree" when asked if the fishbowl technique increased their voluntary participation, and 69.4% "agreed" or "strongly agreed" that the technique increased how much they listened to and attempted to understand others' points of view).

Regarding perceived comfort in participating, 47.2% students felt "very" or "extremely" comfortable participating in fishbowl discussions, and 69.5% "agreed" or "strongly agreed" that fishbowl discussions led to students being more open and comfortable sharing their thoughts, while 72.2% of participants "agreed" or "strongly agreed" that fishbowl discussions led to discussions they would not normally have had and 61.1% "agreed" or "strongly agreed" that they retained more information during fishbowl discussion days relative to traditional classroom discussions.

Finally, when asked if the fishbowl discussions, more so than traditional lecture day discussions, led to behavior change outside of class, 52.8% "agreed" or "strongly agreed." See Table 2.

Discussion

Although many methods are available for managing classroom discussion around sensitive material, few are systematically researched in the college student population. These preliminary data indicate that the fishbowl technique may be an effective tool in creating a comfortable environment for college students to engage in difficult classroom discussions while also inviting positive behavioral change outside the classroom.

A popular explanation for why methods like the fishbowl are not used is because educators perceive them to be to uncomfortable for students. Results suggest that although some students may initially be uncomfortable with the technique, their comfort significantly increases throughout the semester such that by the end of the semester, almost half (47.2%) of students felt "very" or "extremely" comfortable participating in fishbowl discussions.

In addition to comfort, students' participation through both active listening and speaking increased (though not significantly) across the semester such that by the end of the semester, the majority of students believed they were more likely to attempt to understand their peers' perspectives and to participate themselves during fishbowl discussion days.

In this divisive sociopolitical climate, creating a comfortable space for students to educate themselves and discuss sensitive topics with their peers is invaluable. These data are some of the first to offer educators empirical evidence that if they continue implementing this technique in a college environment, students' comfort and participation may increase over time.

Another promising finding was that the fishbowl technique led to discussions students would not normally have had in class. A possible explanation for this trend may be that because the instructor is not part of the discussion (it is entirely peer facilitated), the fishbowl technique lends itself to organic peer-to-peer conversation compared to a traditional classroom discussion with the instructor facilitating from the front of the room.

Finally, this study found that students believe they retain information better when it is covered in a fishbowl discussion and that discussion material influences their behavior outside of class. These results may suggest that the fishbowl technique naturally elicits personal stories from and connections between peers, which are encoded such that students are mindful outside of class of the experience they had in the fishbowl.

Another explanation for why students experience improved retention and behavior change following fishbowl discussions is the influence of being in the outside circle. In the outside circle students are only listening, not speaking. This design may remove anxiety from students who worry they will be called on or thoise who are trying to come up with comments instead of focusing on the discussion. It also requires students who regularly participate verbally to practice holding their comments and just hearing and connecting with their peers' contributions.

Educators often hope that the experiences students have in the classroom will somehow translate to their lives outside of academics. These preliminary data indicate that, for these students, the fishbowl technique, more so than traditional lecture days, offers that experience.

The limitations of the present study include the small and homogenous sample, a reliance on self-report

Table 2
End-of-Semester Responses Regarding Use of the Fishbowl Discussion Technique

	Strongly disagree	*Disagree*	*Undecided / neutral*	*Agree*	*Strongly agree*
Has increased my voluntary participation	3.7	3.7	0	63	29.6
Has increased how much I listen and attempt to understand others	3.7	3.7	0	48.1	44.4
Level of comfort with participating in fishbowl discussions[a]	3.7	3.7	29.6	44.4	18.5
Led to students being more open and comfortable sharing their thoughts	0	0	7.4	55.6	37
Led to discussions we would not have normally had during traditional lecture days	0	0	3.7	44.4	51.9
Led to me changing some of my behaviors outside of class	0	7.4	22.2	48.1	22.2
Retained more information during fishbowl discussions	0	3.7	14.8	59.3	22.2

Note. Data are percentages. Questions were phrased such that experiences during fishbowl discussions were compared to discussions during traditional classroom time (e.g., "I believe the fishbowl discussions, more so than traditional lecture day discussions, led me to change some of my behaviors outside of class").

[a]Available responses to this prompt were "not at all," "slightly," "moderately," "very," and "extremely," respectively.

data, and the lack of qualitative data. Further research may explore the technique using an experimental design, incorporate assessments that measure the impact on learning in addition to self-report measures, and examine the impact across student demographics.

Researchers may also investigate these same questions but invite participants to elaborate on their experience of the technique through open-ended questions or interview. For example, inviting students to elaborate on how the fishbowl discussions changed their behavior outside of class or why they believe they are more likely to actively listen to and attempt to understand their peers' points of view on fishbowl discussion days would enrich this research and inform educators interested in this discussion technique.

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